

Abstract of the Disclosure

EXHAUST GAS PARTICULATE MEASURING SYSTEM

A gas sampling system 36 capable of testing and certifying internal combustion engines 16 under transient conditions is provided and includes a partial flow dilution tunnel 38, master and slave mass flow controllers 80,60 and a transient dilution air flow controlling arrangement 110. The transient dilution air flow controlling arrangement 110 measures the transient changes in intake air and varies the flow of diluent air to the partial flow dilution tunnel 38. By controlling the diluent air in this manner ensures that a particle sample can be taken at any time that is at a constant proportion to the exhaust flow rate.